

# Generation, cloning, and expression of full-length human *EVC* gene

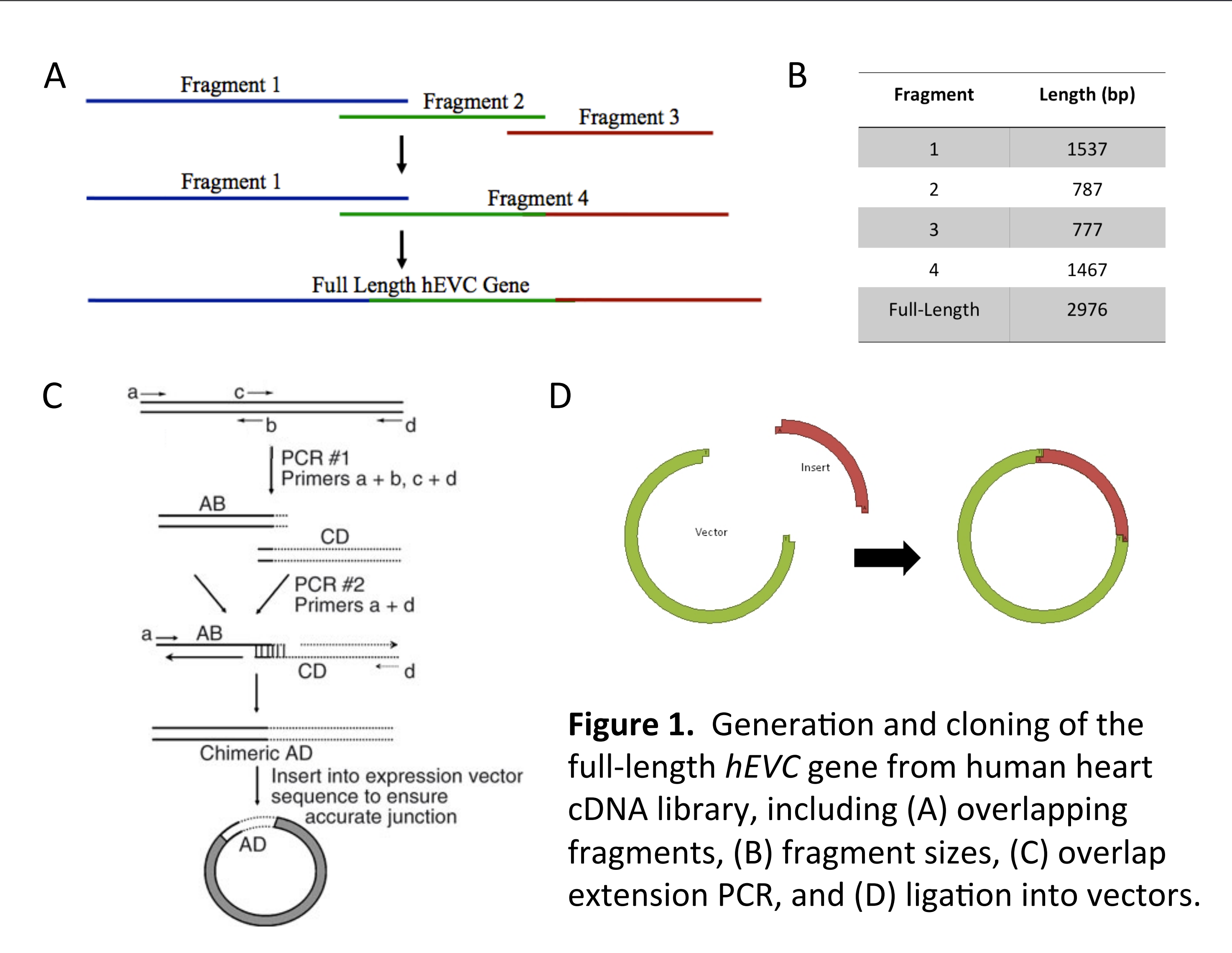
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## Introduction:

- Ellis van-Creveld Syndrome (EvC) is a rare condition that is characterized by short limbs, polydactyly, nail dysplasia, and other developmental afflictions.<sup>1</sup>
- Mutations in *EVC* and *EVC2* genes lead to the development of EvC.<sup>1,2</sup>
- EVC* and *EVC2* proteins are positive modulators of the Indian Hedgehog signaling pathway which regulates the growth of bones and related tissue.<sup>3,4</sup>
- The two proteins interact with each other and localize on the primary cilia membrane.<sup>4</sup>
- The precise role of the proteins in the Indian Hedgehog signaling pathway has not yet been determined.

## Strategy to generate complete *EVC* gene:



## Future Work:

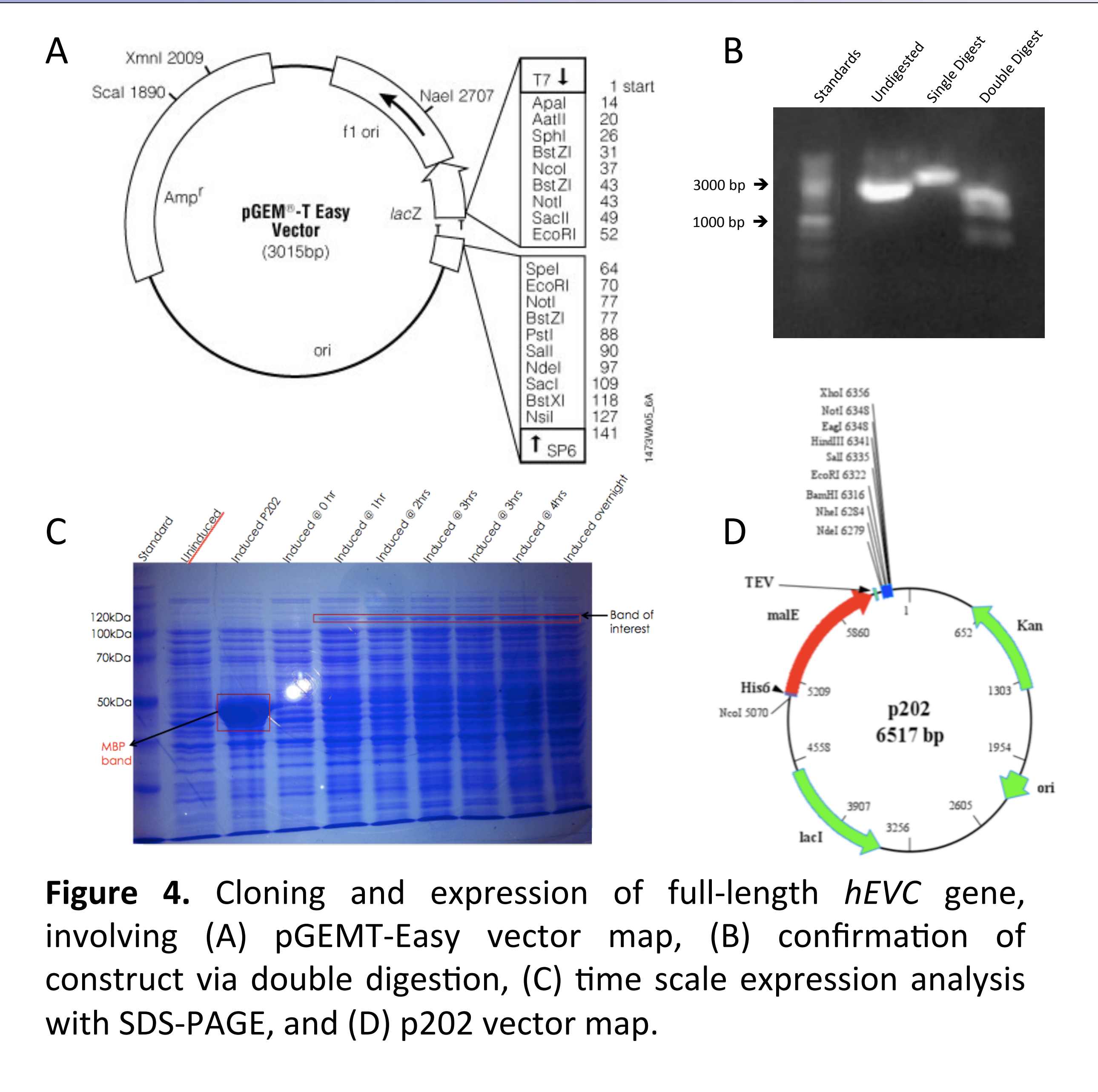
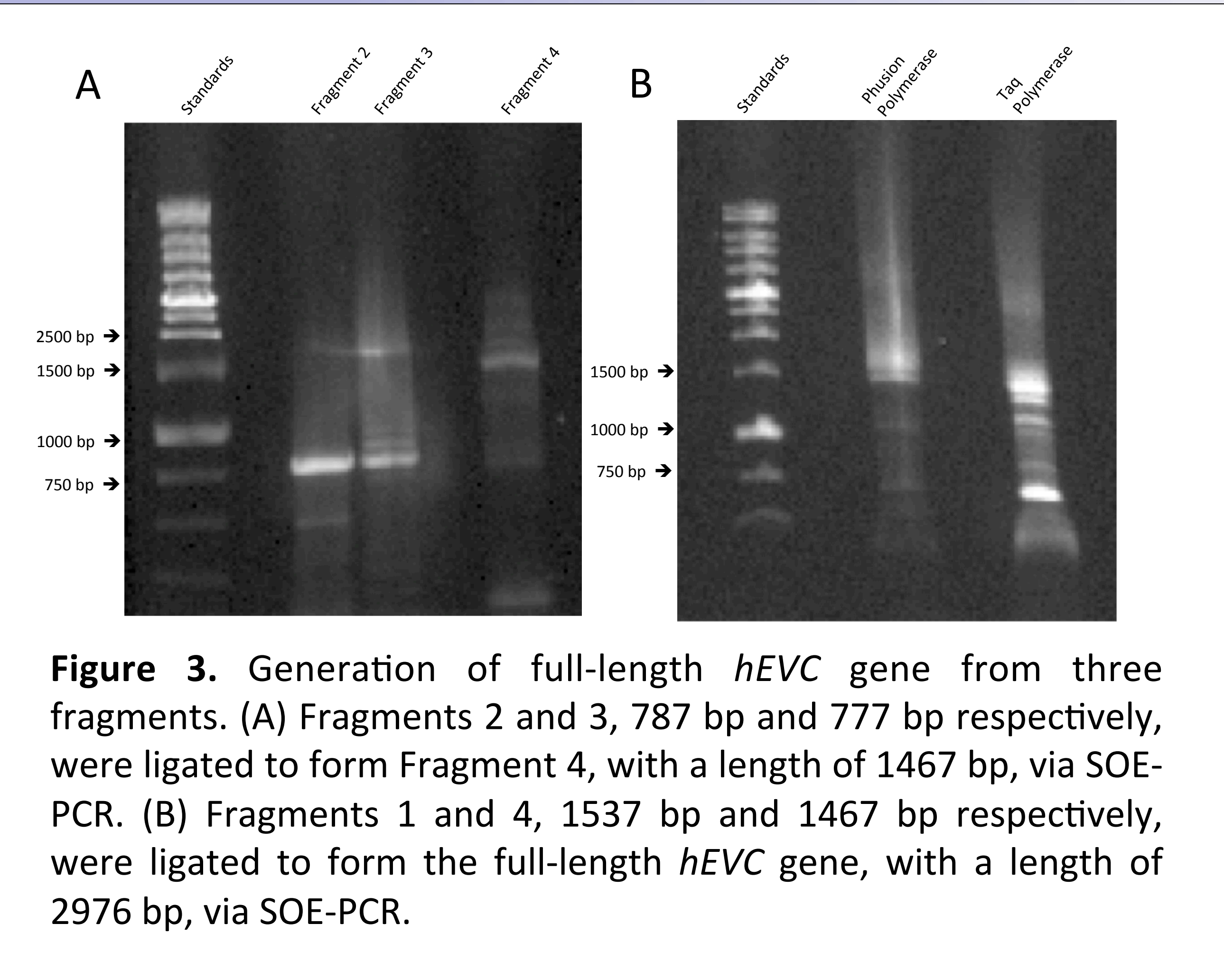
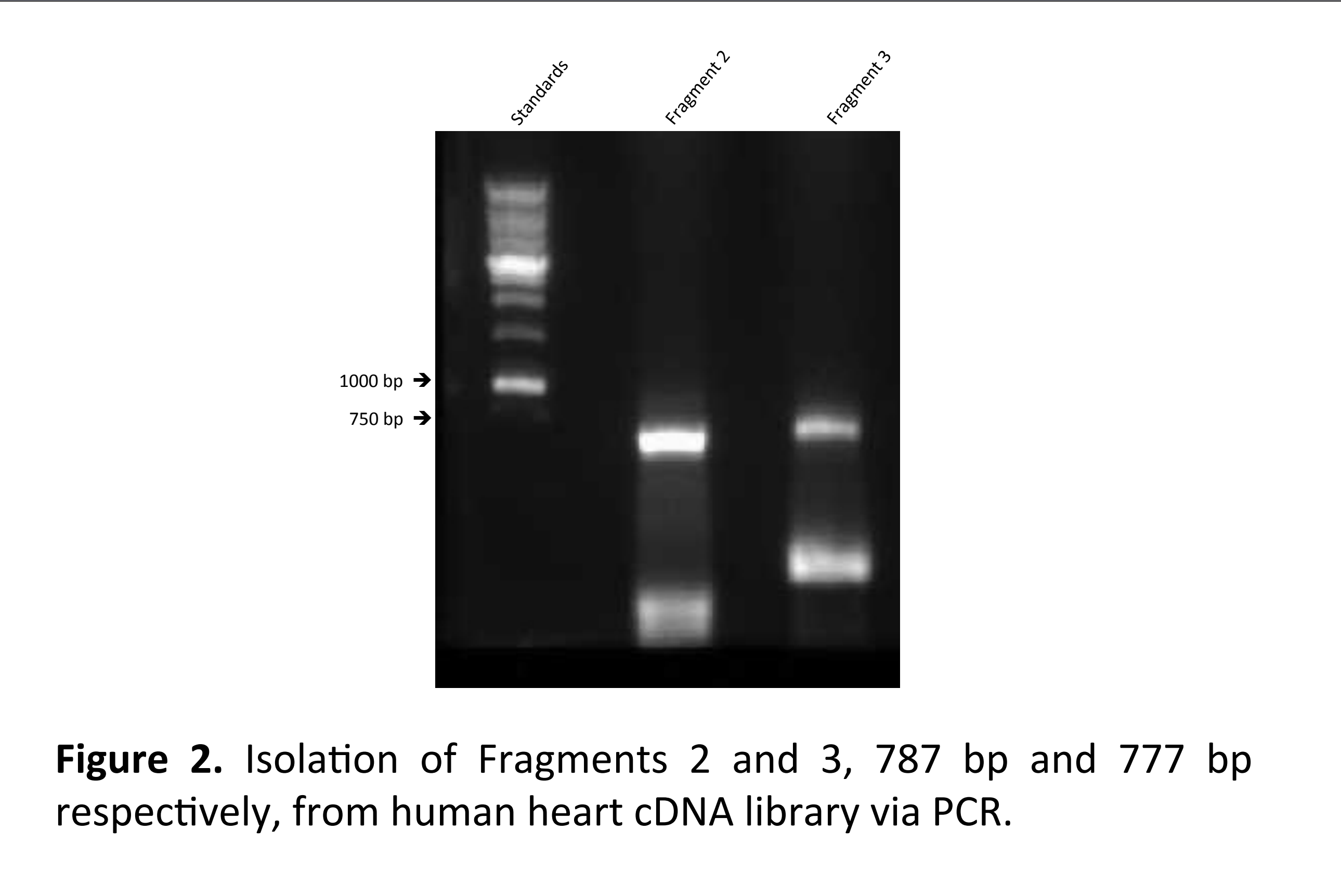
- Confirm DNA sequence of human *EVC* gene product
- Optimize expression protocol
- Characterize biochemical properties of hEVC protein

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- Office of Research and Sponsored Programs

## Results:



16	9	33	92
S	F	As	U
32.064	18.9984	74.9126	238.03

### References:

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